Quality Assurance in Assessment

Using Portfolio Assessment to Align Teaching, Learning and Assessment

Agnes Tiwari  PhD, RN, FAAN
School of Nursing
The University of Hong Kong
吸德格物培根队
保理学系育贤能
松鹤延龄玉玲珑
十年树木百年人
Using Portfolio Assessment to Align Teaching, Learning and Assessment

• What portfolio assessment is
• Portfolio assessment in the context of outcome-based teaching and learning
• Portfolio assessment in practice
• Practical considerations
The concept of portfolio is not new
Portfolio Assessment

• Interest in the use of portfolios for assessment since late 1980s
• In search for more “authentic” assessment practices
• As an alternative to the “traditional” assessment methods

Belenoff and Dickson, 1991; Biggs and Tang, 2007
“Portfolio Assessment”

249,000 hits
Defining Portfolio Assessment

• “Collection of student work that demonstrates achievement or improvement” (Stiggins 1994)

• “A portfolio is a collection of evidence that is gathered together to show a person’s learning journey over time and to demonstrate their abilities” (Butler 2006)
Some key Characteristics

• *Collection* of student work
• *Purposeful* selection of *evidence* of learning
• *Justification* for the selected portfolio items
From process to outcome: the effect of portfolio assessment on student learning

Agnes Tiwari and Catherine Tang
What motivated us to use portfolio assessment?

Teacher:
Objectives → Teaching activities → Assessment

Student:
Assessment → Learning activities → Outcomes
Assessment determines what and how students learn.
Students learn what they think they will be tested on
BACKWASH

The effects of assessment on learning

Alderson and Wall, 1993
Negative Backwash Effect

Student:

Assessment → Learning activities → Outcomes

Perceived low cognitive level assessment tasks → Surface approach to learning → Minimally acceptable outcomes and applications
**Positive Backwash Effect**

Student:

Assessment → Learning activities → Outcomes

- **Perceived** high cognitive level assessment tasks
- **Deep** approach to learning
- The *very best* outcomes that could reasonably be expected
Aligning…

Learning Objectives → Teaching & Learning Activities → Assessment
Outcome-based Teaching and Learning

Teaching/Learning Activities → Intended Learning Outcomes ← Assessment Tasks
Portfolio Assessment

Theoretical Underpinning

Constructivism
Constructivism

- Students **construct** their own knowledge from the teaching/learning experience.
- Teaching is **not** a matter of **transmitting** knowledge.
- But of **engaging students** in active learning, building their knowledge in terms of what they already **understand**.

Biggs and Tang, 2007:21
Portfolio as a means of aligning teaching/learning and assessment

1. Identify the intended learning outcomes
2. Create a learning environment using teaching/learning activities that would bring out the intended learning outcomes
3. Select portfolio as the assessment task to judge how well students’ performance meets the criteria
4. Transform the judgment into grading criteria

Biggs and Tang, 2007
LI KA SHING FACULTY OF MEDICINE

SCHOOL OF NURSING

Master of Nursing

Year I

NURS 7101

PHILOSOPHY & SCIENCE OF NURSING

COURSE MANUAL
Intended Learning Outcomes

At the end of this module, students should be able to:

ILO1  Explain the nature of the philosophy of nursing and relate it to the western and Chinese philosophical context
ILO2  Describe and reflect on the development of nursing knowledge
ILO3  Explain the historical evolution of nursing science
ILO4  Analyse the metaparadigm of nursing in terms of nursing, health, client and environment
ILO5  Reflect on and evaluate the contemporary perspectives of nursing
ILO6  Analyse and theorize the interrelationships among nursing theory, research, practice and education
Teaching and Learning Activities

- Mini-lecture
- Socratic discussion
- Peer-led think-aloud evaluation
- Case studies
- Reflective logs
- Concept maps
- Context-based problem-based learning
- Spontaneous collaborative learning
Assessment Tasks

- Two items of work (2000-2500 words/item)
- Covering all the ILOs
- Provide justification for the selected items
### Judging Performance

Table 13.8 Holistic grading for the assessment portfolio in nursing

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
<th>Understanding demonstrated</th>
<th>Evidence provided (examples)</th>
</tr>
</thead>
<tbody>
<tr>
<td>A ≥ 70</td>
<td>Excellent</td>
<td>Understanding at an extended abstract level</td>
<td>Theorize about a topic Generalize to new applications Reflect on experience</td>
</tr>
<tr>
<td>B 60–69</td>
<td>Good</td>
<td>Understanding at a relational and application level</td>
<td>Apply theory to practice Recognize good and bad applications</td>
</tr>
<tr>
<td>C 53–59</td>
<td>Fair</td>
<td>Understanding at a multistructural declarative level</td>
<td>Describe nursing knowledge Explain nursing philosophy Comprehend selected nursing theories</td>
</tr>
<tr>
<td>D 50–52</td>
<td>Pass</td>
<td>Understanding at the lowest nominal level</td>
<td>Name the concepts or theories Focus on one conceptual issue</td>
</tr>
<tr>
<td>F ≤ 49</td>
<td>Fail</td>
<td>Fail to achieve the stated learning objectives</td>
<td>Miss key issues Demonstrate erroneous understanding</td>
</tr>
</tbody>
</table>
Practical Considerations

• **Intended Learning Outcomes**
  – Must be clearly articulated and understood by students
  – Use verbs (e.g., identify, describe, explain, analyze, evaluate, apply, reflect, theorize) to indicate the levels of performance (understanding) students are expected to achieve
Practical Considerations

• **Teaching and Learning Activities**
  – Large classes or small groups
  – Inside and outside the classroom
  – Teacher-led or peer-led
  – Planned activities and spontaneous collaborative learning
Practical Considerations

• Assessment Tasks
  – How to demonstrate that the intended learning outcomes have been achieved?
  – Number of portfolio items
  – Formative versus summative assessment
Practical Considerations

- **Judging performance**
  - How to show qualitative differences in performance? (judged against grading criteria)
  - How to derive the final grade?

<table>
<thead>
<tr>
<th>Portfolio (1)</th>
<th>Portfolio (2)</th>
<th>Portfolio (3)</th>
<th>Portfolio (4)</th>
<th>Portfolio (5)</th>
<th>Portfolio (6)</th>
<th>Portfolio (7)</th>
<th>Portfolio (8)</th>
<th>Portfolio (9)</th>
<th>Portfolio (10)</th>
</tr>
</thead>
</table>
Does it work?

• “Chinese students will not like the idea of having to make decision about what to submit as evidence of their learning”

• “Students are not interested in what intended learning outcomes are”

• “Students do not understand the different levels of understanding”

• “Portfolio assessment is time-consuming”
Does it work?

• > 10 cohorts of students
• > 6 different courses (clinical and non-clinical)
• Students performances (on average)
  – > 35% Grade A
  – One failure
• Student evaluation
  – Course effectiveness score 70+
  – Positive academic and affective outcomes
• External examiners
  – Positive evaluation
In the beginning, a small ambition
**Negative Backwash Effect**

Student:  
Assessment → Learning activities → Outcomes

- **Perceived** low cognitive level assessment tasks
- **Surface** approach to learning
- **Minimally acceptable** outcomes and applications
Positive Backwash Effect

Student: assessment activities → outcomes

Perceived high cognitive level assessment tasks → Deep approach to learning → The very best outcomes that could reasonably be expected
AMBITION

Aim high...but remember the farther you go, the more you will have to carry.
Thank you!